higher than for each of the other treatment strategies but this was likely to have been due to the selection of an elderly population in this trial rather than a result of the intervention. **CONCLUSIONS:** The large uncertainty around the potential benefits of DOT strategies prohibits a conclusive statement regarding their cost-effectiveness in comparison to SAT.

**IN3**

### ASSESSMENT OF KNOWLEDGE ABOUT TUBERCULOSIS AMONG LIBYAN POPULATION IN NORTH EAST LIBYA

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**OBJECTIVES:** To evaluate the knowledge of North Eastern Libyan population with regards to the etiology and treatment of tuberculosis (TB). **METHODS:** A cross sectional study was undertaken in 2009. A pre-validated questionnaire was sent to 1400 residents residing in five cities of North East Libya. At the end of the study a total of 1000 questionnaire was collected. Questionnaire includes questions related to respondent's demographics, general knowledge, transmission, diagnosis, risk factors, treatment and prevention of TB. All data was analyzed using SPSS version 15.00 Software package (SPSS Inc, Chicago, IL, USA) Chi-square test and one-way ANOVA were used as whenever appropriate, *P*-value less than 0.05 was considered significant. **RESULTS:** Almost all subjects (n = 965, 96.5%) in this study had heard about TB. The main sources of knowledge were television (n = 447, 44.7%), health workers (n = 242, 24%) and family members (n = 189, 19%). Majority of the respondents were Libyans (n = 883, 88.3%). Fifty percent of the respondents were males. For the purpose of this research the maximum score of the knowledge which can be obtained by any respondent is 23. Assessment of knowledge score reveals that the mean knowledge score was significantly higher among Libyans (11.7 ± 3.8) than non Libyans (9.7 ± 4.7, $t = 26.13$), ($P < 0.001$). In addition those respondents with tertiary educations scored significantly higher knowledge score (11.8 ± 3.5) compared to those of intermediate (11.6 ± 4.4) and illiterate (7.7 ± 5.5), [$F = 19.34$, $P = 0.001$]. No significant differences between the demographic variables and knowledge score. **CONCLUSIONS:** The present study findings suggested that the level of knowledge about TB among residents in Libya was low. Therefore, there is a need for massive health education campaign to be undertaken by policymakers in order to improve the population's knowledge toward TB.

**IN4**

### HERPES ZOSTER-ASSOCIATED ILLNESSES, QUALITY OF LIFE AND HEALTH-CARE COSTS AMONG 180 THAI PATIENTS

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**OBJECTIVES:** To determine the incidence of zoster-associated symptoms, as well as the impact of zoster on pain, quality of life, work loss, health-care utilization and direct health-care costs among 180 Thai patients seeking medical care for herpes zoster. **METHODS:** *Study design*: prospective observational study conducted in seven hospitals in Bangkok and vicinity, Thailand *Study population:* patients recently diagnosed herpes zoster, and meeting at least one other criterion, as follows: aged ≥50 years; aged ≥20 years with HIV-infection or receiving chemotherapy. All patients were scheduled for five visits (i.e., at Day1, Day7, Month1, Month3, Month 6) for questionnaire based interview to determine zoster-associated pain (Zoster Brief Pain Inventory questionnaire), quality of life (EUROQOL 5-dimension questionnaire), work and productivity (multi-response questionnaire), and health-care utilization and cost. *Statistical analysis:* Descriptive statistics and Spearman rank correlation coefficients were used. **RESULTS:** Of 180 patients, whose mean (SD) age was 58.9 (13.82) years, 138 (76.7%), 34 (18.9%), and 8 (4.4%) were age ≥50 years, HIV-infected and immunosuppressed, respectively. Thirteen (7.2%) and 35 (20.6%) patients had zoster ophthalmicus and post-herpetic neuralgia (pain that persisted beyond 3 months of illness), respectively. Peak QoL lost was observed during the first week of study and declined thereafter. Correlations between worst-pain scores and QoL were moderately high, $r = 0.54$. Of those 77 working patients, 57 reported that they were absent from work, either entired day or part of day, during zoster illness. Thirty patients reported sick leave and the median number of days off was 5.5 (1–52) days. Most patients required only two OPD visits for zoster illnesses. Other health-care services requirement included emergency-room visits (n = 2), ambulance services (n = 3), or hospital admissions (n = 7). The mean (SD) direct health-care cost was 3083.39 (5047.03) Thai Baht. **CONCLUSIONS:** Herpes zoster causes a significant burden among those who develop it.

## PODIUM SESSION I: RESEARCH ON METHODS

**ME1**

### METHODOLOGICAL ISSUES IN THE DEVELOPMENT OF AN AUSTRALIAN ALGORITHM FOR THE EQ-5D

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**OBJECTIVES:** QALY weights for the EQ-5D are typically obtained through time trade-off (TTO) surveys using a sub-set (n = 17 or n = 43) of the 243 health states. Discrete choice experiments (DCEs) are a potentially more flexible approach. We explore the development of EQ-5D algorithms based on both approaches and the impact of selection of health states in each. **METHODS:** We explore experimental designs for the TTO and DCE approaches via, respectively, a simulation study and a pilot study. An on-line panel sample (n = 1000) completed the DCE. Each choice set presented two health profiles (EQ-5D state and survival duration), and death. A population sample (n = 417) completed a computer based TTO task and the DCE. The TTO incorporated 198 plausible health states. Respondents were randomly assigned to value 11 health states and the worst health state. Separate models were estimated for the DCE and the TTO. **RESULTS:** Results of the DCE pilot suggest that different experimental designs lead to differences in both the mean and variance of parameter estimates. There is a loss of statistical efficiency arising from using a reduced set of health states. The simulation study demonstrated that many interaction effects are not estimable from a TTO using only 43 health states. Models were estimated based on the functional form for the published algorithm for the EQ-5D, and allowing for interaction terms. While relatively few interaction terms are significant, comparison tests demonstrate that inclusion of interaction terms improves the fit of the model. **CONCLUSIONS:** Both approaches are broadly consistent with previously published EQ-5D algorithms, with some important differences. DCEs allows exploration of interactions between health states and duration that cannot be estimated with the TTO approach. In both approaches a design that allows for more extensive coverage of the EQ-5D space is appropriate.

**ME2**

### VALIDATING THE ACCURACY OF A NOVEL METHOD FOR IDENTIFYING HEALTH CARE-ASSOCIATED INFECTIONS

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**OBJECTIVES:** The identification of health care-associated infections (HAIs) is a necessary first step for elucidating infection patterns and evaluating control measures. While the potential advantages to using administrative data for this purpose are recognized, previous attempts have proved unsuccessful. We have developed a novel method of HAI identification based on a series of criteria involving antibiotic utilization patterns available in administrative data. The objective of this study was to validate the accuracy of our HAI identification method using comparative analyses with chart review-based identification. **METHODS:** We retrospectively and contemporaneously identified HAIs in 584 gastrectomy patients admitted to four Japanese hospitals (A~D) using both our method and chart reviews. Chart review analysis was based on CDC criteria for nosocomial infections. The accuracy of our method was tested using Cohen's Kappa coefficient to quantify the non-random agreement between the two methods, as well as sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV). **RESULTS:** Overall HAI incidence was 21.6% based on chart review identification. Cohen's Kappa coefficient was 0.78, and sensitivity and specificity were 0.93 and 0.91, respectively. PPV was 0.75 and NPV was 0.98. **CONCLUSIONS:** These results indicate that our method of identification has high accuracy, and may be used to estimate HAIs in large populations of patients at the hospital level and above. While the NPV was observed to be higher than the PPV, the relatively low prevalence of HAI incidence may have influenced this result. It is important to note that this method was not designed to pinpoint individual infections, but rather to identify identifications in a large number of patients using administrative data with a far higher accuracy than previously available. Therefore, our method has applications for HAI identification in large groups of patients, elucidating HAI patterns and trends, downstream economic evaluations and multi-institutional comparisons.

**ME3**

### COST METHOD: A SIMPLE FRAMEWORK AND WORKING TOOL FOR BUDGET IMPACT ANALYSIS

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**BACKGROUND:** Budget impact analysis was required for new drugs listing application to the National Health Insurance (NHI) in Taiwan over the last decade. However, a working model has not been proposed until now. **OBJECTIVES:** To provide a simple framework and working tool to estimate the likely financial impact to NHI due to the submitted new drug. **METHODS:** To estimate the potential 5-year financial impact annually if a new drug was reimbursed, proposed framework starts with the size of patient population and potential claim amount of existing drugs that the new drug is going to target, and taking into account the clinical position and usage of the new relative to the existing drugs. A simple working tool by using Excel spreadsheet was developed accompanying the framework. Only nine cells need to be input. They are grouped into three parts: 1) predicted annual number of new patients receiving new drug; 2) treatment duration; and 3) drug cost. The first part should reference to local